IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Lewis WAYBURN et al.

Title: APPARATUS AND METHOD FOR CONTROLLING THE TEMPERATURE OF AN ELECTRONIC DEVICE

Appl. No.: 10/804,838

Filing Date: 03/19/2004

Examiner: Filip Zec

Art Unit: 3744

REPLY UNDER 37 CFR 1.111

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This communication is responsive to the Non-Final Office Action dated June 17, 2005, concerning the above-referenced patent application. A petition to extend time to within the first extended month accompanies this reply.

Claims 1-23 are pending. The Office Action rejects claims 1, 6, 8-12, 21 and 23 under 35 USC §102(b) as anticipated by US Patent No. 6,184,504 to Cardella ("Cardella"). The Office Action rejects claims 2, 3, 7, 13-16, 20 and 22 under Section §103(a) as being obvious over Cardella in view of U.S. Patent No.6,334,311 to Kim. Claims 4, 5, 17 and 19 are rejected under Section 103(a) as being obvious over Cardella and Kim further in view of U.S. Patent No. 5,778,969 to Kyung et al. Claim 18 is rejected as obvious over Cardella and Kim, further in view of US Patent No. 5,198,752 to Miyata. Copies of the cited references are attached. Applicant respectfully traverses these rejections.

Independent claims 1 and 12 are each drawn to an apparatus for controlling the temperature of an electronic device. Among other elements, claims 1 and 12 recite "first and second shutoff valves located in said flow loop between said refrigeration system and said thermal head, said first shutoff valve being upstream of said thermal head and said second shutoff valve being downstream of said thermal head."

Independent claim 18 is drawn to an apparatus and recites, among other elements, "a first shutoff valve located in said fluid flow loop at a position downstream of said condenser" and "a second shutoff valve located in said fluid flow loop at a position upstream of said compressor."

Independent claim 19 is drawn to a method that includes a step of "providing first and second shutoff valves in said fluid flow loop on upstream and downstream sides of said thermal head, respectively." Claim 19 further recites closing the first shutoff valve while operating the refrigeration system, "continuing to operate the refrigeration system until substantially all said refrigerant fluid is drawn from said thermal head," closing the second shutoff valve to trap the refrigerant fluid, and disconnecting the thermal head.

Consequently, all pending claims recite first and second shutoff valves in the flow loop of a refrigeration system and a thermal head. In regard to this feature, the Office Action relies entirely on Cardella. Specifically, the Office Action alleges that Cardella's system includes "a first shut-off, fluid-flow regulating valve (170) located between said refrigeration system and said inlet (see FIG. 2b) and a second shutoff, fluid-flow regulating valve (not numbered, taught in col 7, lines 30-46) located between said refrigeration system and said outlet (see FIG. 2b)." Applicants respectfully traverse this assertion.

Contrary to what is asserted in the Office Action, valve 170 as disclosed by Cardella is not part of a refrigeration loop. Rather, Cardella states that valve 170 operates "in a first mode to supply high pressure air to the outlet 175 to cause the membrane 185 to flex and press the heat transfer member 95 against the thermal conductor 85 to reach a heat coupling position, and in a second mode to vent or release the pressure of air behind the membrane 95 to return to an uncoupled position." (Col. 7, lines 32-38.) Consequently, valve 170 is not

located in the flow loop of a refrigeration system. Rather, it serves to control the membrane 185, which in turn serves to selectively moving a heat transfer member 95 to and from a heat coupling position. While Cardella describes a fluid flow loop that flows through channels 135 of the heat transfer member 95, as shown in Fig. 2a, the valve 170 is *not* part of the flow loop.

For at least these reasons, Cardella fails to teach or disclose all features of the invention recited in the claims. Further, the features that are absent from Cardella are not taught or suggested by the secondary references. The present rejections of the pending claims is therefore requested.

Applicants submit that the present application is now in condition for allowance. Favorable reconsideration of the application is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date OCT 17 2005

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